CORRELATIONS BETWEEN RISK MANAGEMENT INDICATORS AND PERFORMANCE LEVELS ON THE EXAMPLE OF S.C. BANCPOST S.A.

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1. General considerations

Banking risk management objective is to optimize risk / return and this is an important determinant of banking strategy.

The profits obtained by the bank are a direct consequence of its own type of strategy adopted by the bank management for the purposes of accepting or not the risks in banking activities that it carries.

Since any attempt by a bank to profit involves risks, the bank objectives involve obtaining large profits from a given level of risk, or taking lower risks for a given level of profits.

So, the bank management ask itself two questions:

- What degree of risk should also take the bank to increase its profits?
- How much of each type of risk must take the bank?

Risk management provides a vision of the bank to improve its future and the skills to be competitive on the market.

Ignoring the risks present and future can lead to serious future losses and even bankruptcy. Without a rigorous analysis of risk management, the bank can not give an estimate of future risks, otherwise there is no control of risk affecting the bank's major income.

2. Trends in the evolution of indicators of risk and performance at S.C. Bancpost S.A.

To highlight the correlations between risk management and performance levels, we must first analyze the evolution of the ROE rate and the quantification of indicators of credit risk, the risk of interest rate, solvency and liquidity risks.

Equity rate of return (ROE) measures the return on investment made by shareholders in both operating and extraordinary work.

This indicator of the analyzed bank has in 2005 negative values. Since 2006, the indicator is an upward trend, due to increased net profit from one year to another, in 2007 reaching 12.58% (see table no. 1. and chart no. 1).

Table no.1.

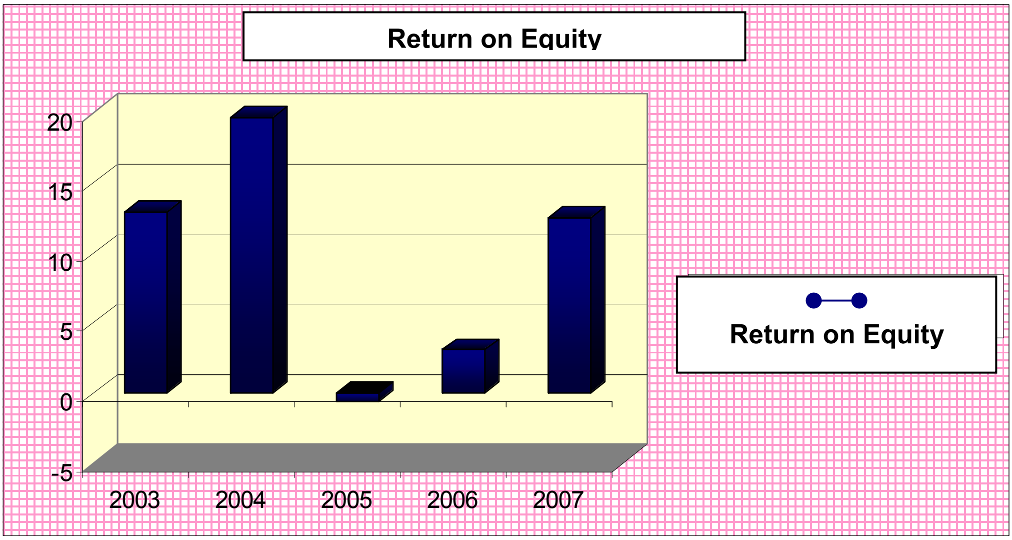
Return on Equity (ROE)

Thousands RON

	2003	2004	2005	2006	2007
Net Profit	43602	98825	-4337	25480	117256
Own Capital	336907	501381	796585	817319	931682
ROE %	**12.94**	**19.71**	**-0.54**	**3.11**	**12.58**
Dynamics %		152.30	-2.76	-572.59	403.70

Source: Annual Reports and own calculations

Chart no. 1.



Source: own calculations

Next, we make assessments based on credit risk calculated at SC Bancpost S.A. From table. 2. and chart no. 2 we observe that the indicators have an oscillating trend, high values recorded in 2007 and 2008 based on the international financial crisis.

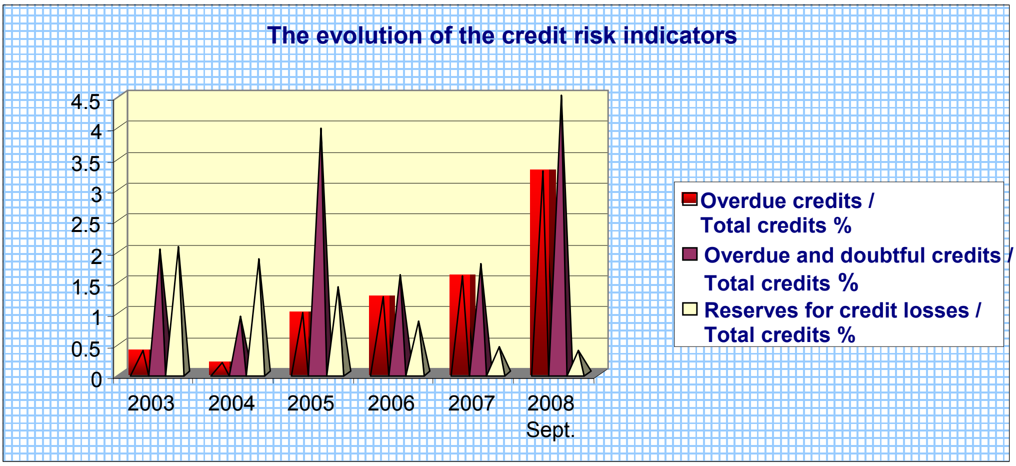
The share of loans outstanding and the rate of bad loans should be as small to express the effective management of credit risk. The size of the risk is used by the analyst to determine the necessary reserves to cover losses of the loan portfolio.

Table no. 2 (Thousands RON)

	2003	2004	2005	2006	2007	2008 sept
Overdue credits	4470	3514	26732	56961	140970	335097
Total credits	1148982	2036822	2678010	4572661	8898067	10205423
Overdue credits / Total credits %	**0.38**	**0.17**	**0.99**	**1.24**	**1.58**	**3.28**
Dynamics %		44.34	578.59	124.79	127.18	207.25
Overdue and doubtful credits	23289	18778	106439	73323	157990	459665
Total credits	1148982	2036822	2678010	4572661	8898067	10205423
Overdue and doubtful credits / Total credits %	**2.02**	**0.92**	**3.97**	**1.60**	**1.77**	**4.50**
Dynamics %		45.48	431.11	40.34	110.72	253.67
Reserves for credit losses	23602	37872	37872	38554	38554	38554
Total credits	1148982	2036822	2678010	4572661	8898067	10205423
Reserves for credit losses / Total credits %	**2.05**	**1.85**	**1.41**	**0.84**	**0.43**	**0.37**
Dynamics %		90.51	76.05	59.62	51.38	87.18

Source: Annual Reports and own calculations

Chart no. 2.



Source: own calculations

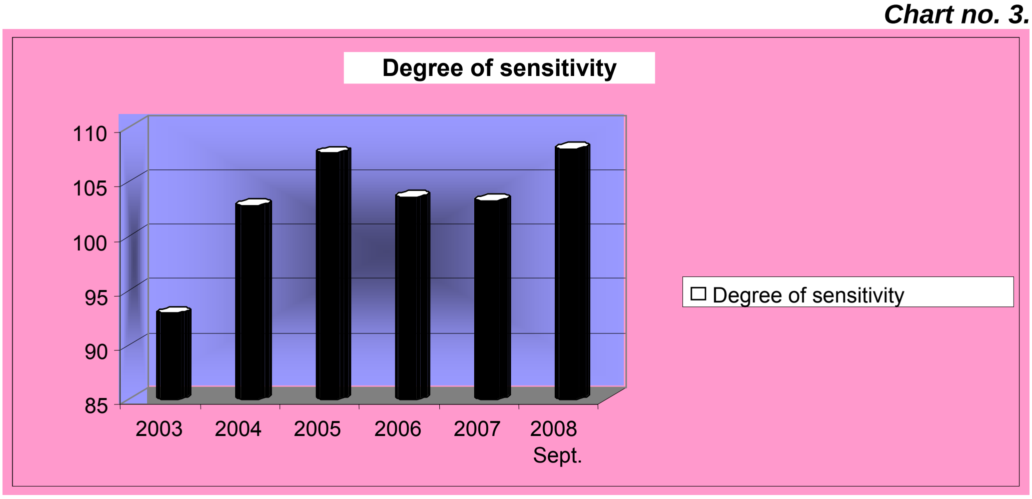
Regarding interest rate risk, the indicator values calculated in table no.3 and chart no.3 show that the degree of sensitivity is always over the unit, except in 2003, which means a long position of interest. Therefore, interest rate risk is relatively low at present.

Table no. 3.
Thousands RON

Indicators	2003	2004	2005	2006	2007	2008 sept
Sensitive assets	2166961	3724418	5116591	7023860	12654950	10205423
Sensitive liabilities	2332262	3622301	4754403	6783700	12252942	9447425
Degree of sensitivity %	**92.91**	**102.81**	**107.61**	**103.54**	**103.28**	**108.02**
Dynamics %		110.66	104.66	96.21	99.74	104.59

Source: Annual Reports and own calculations

Chart no. 3.



Source: own calculations

Instead, the overall liquidity calculated as the ratio between effective liquidity and necessary liquidity has an oscillating trend, reaching in 2008 the level of 1.75. Therefore the bank has good liquidity, as indicated in table no. 4. and chart no. 4.

Table no. 4..

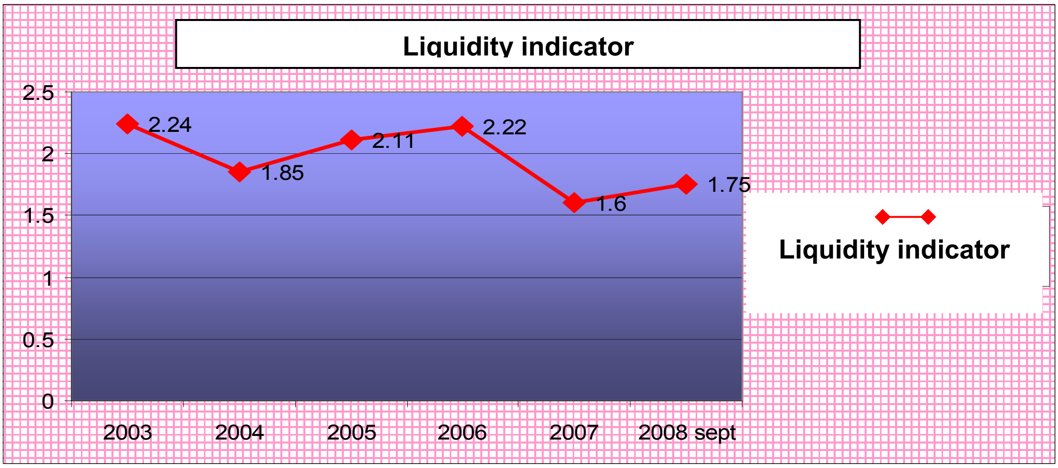
Indicator of liquidity

Thousands RON

	2003	2004	2005	2006	2007	2008 Sept.
Effective liquidity	222052	3751780	5203898	7073097	12479997	13433488
Necessary liquidity	993420	2029974	2468339	3189589	7801122	7678890
Indicator of liquidity	**2.24**	**1.85**	**2.11**	**2.22**	**1.60**	**1.75**
Dynamics %	100%	85.58%	114.05%	105.21%	72.07%	109.37%

Source: Annual Reports and own calculations

Chart no. 4.



Source: own calculations

Analyzing the recorded levels of solvency rate, we see that the bank has complied with minimum of 8% during 2003 - 2006, the maximum level being reached in 2005 (23.6%) in 2007 and 2008, according to new regulations, the value of this indicator has decreased and it had values 7.27% and 8.82% (see table no.5).

The downward trend of the indicators of solvency in recent years is due to non-government credit expansion, particularly on the population.

Table no. 5. (***Thousands RON)***

	2003	2004	2005	2006	2007	2008 sept
Own Capital (cap rank 1)	284572	457328	734513	739572	860740	830574
Risk weighted assets	1801428	2347706	3107959	5817732	11836876	9406710
Solvency indicator %	**15.80**	**19.47**	**23.63**	**12.71**	**7.27**	**8.82**
Dynamics %		123.31	121.32	53.79	57.20	121.42

Source: own calculations

3. Correlations between ROE and the risk indicators

In order to study the correlations between ROE and the risk indicators analyzed in the previous paragraph, we use linear regression function in Excel program.

Thus, in case of S.C. Bancpost SA, the influence of the risk of liquidity on the variation of ROE can be summarized in the following results:

Regression	
Multiple **R**	0.15116
R Square	0.022849
Adjusted R Square	-0.30287
Standard Error	12.65189
Observations	5

Source: own calculations

The rate of liquidity risk affects ROE variation in the proportion of 2%. A possible statistical correlation between the two elements would have the following form:

ROE = - 5.64 + 6.11 * Liquidity risk

Between the two sizes there is a direct correlation of low intensity. Therefore, an increase by a percentage rate of liquidity risk, ROE increased by 6.11%.

Influence of credit risk over ROE can be synthesized in the following results:

Regression	
Multiple **R**	0.986039
R Square	0.972272
Adjusted R Square	0.944544
Standard Error	0.640748
Observations	5

Source: own calculations

Credit rate risk affects ROE variation in the proportion of 97%. A possible statistical correlation between the two elements would have the following form:

ROE = 9.27 - 3.28 * Credit risk

The two dimensions are correlated indirectly to high intensity. Therefore, a decrease by a percentage rate of credit risk, ROE increased by 3.28%.

Influence on the risk of solvency ROE variation can be synthesized in the following results:

Regression	
Multiple **R**	0.217992
R Square	0.047521
Adjusted R Square	-0.26997
Standard Error	12.49115
Observations	5

Source: own calculations

Solvency rate changes affects the financial profitability at the rate of 4%. A possible statistical correlation between the two elements would have the following form:

ROE = 12.02 - 0.37 * Solvency risk

Between the two dimensions there is an indirect correlation of low intensity. Therefore, a decrease by a percentage rate of liquidity risk, ROE increased by 0.37%.

Influence of the risk of interest rate over ROE can be synthesized in the following results:

Regression	
Multiple **R**	0.478474
R Square	0.228937
Adjusted R Square	-0.02808
Standard Error	8.286786
Observations	5

Source: own calculations

Rate risk of interest rate changes affects ROE in the proportion of 22%. A possible statistical correlation between the two elements would have the following form:

ROE = 82.78 - 0.71 * Interest rate risk

Between the two dimensions there is an indirect correlation of low intensity. Therefore, at a decrease of one percent interest rate risk, ROE increased by 0.71%.

4. Conclusions

In conclusion, we can say that the bank manages liquidity risk effectively, has a limited market risk, solvency and a credit risk increased due to increased bank interest. Rapid growth of loans and the high level of foreign currency loans granted to borrowers without collateral, could create problems for quality assets in the future. However, these risks are reduced by the procedures of risk management, implemented in accordance with Eurobank. But the deep restructuring that took place in 2006 leads us to believe that the bank is on track and that in the future it will improve the indicators of banking risk.

From the analysis of correlations between ROE and credit risks, interest rate, liquidity and solvency risks we draw the conclusion that, in SC Bancpost SA case, ROE is influenced by the variation of banking risks as follows:

- credit risk exercises great influence, approximately 97%;
- influence of other risks is low: 2% in case of liquidity risk, and only 4% in case of solvency risk and 22% for interest rate risk.

REFERENCES

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Capgemini	*World Retail Banking Report,* 2008
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